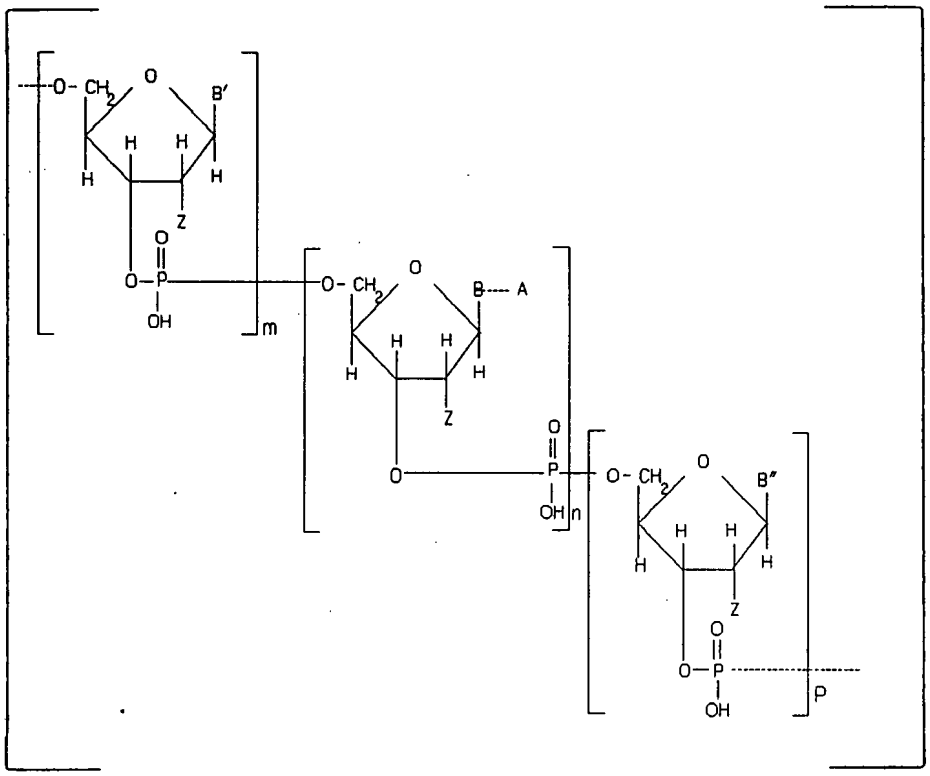
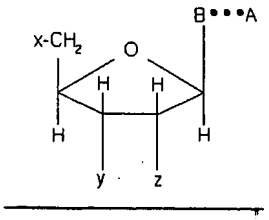
a detectable polypeptide complexed with an oligo- or polynucleotide containing a nucleotide [a compound] having the structure:





wherein B [each of B, B', and B"] represents a purine, 7-deazapurine, or pyrimidine moiety covalently bonded to the C$^{1'}$-position of the sugar moiety, provided that whenever B [, B', or B"] is purine or 7-deazapurine, the sugar moiety is attached at the N^{9}-position of the purine or deazapurine, and whenever B [, B', or B"] is a pyrimidine, the sugar moiety is attached at the N^{1}-position of the pyrimidine;

wherein A represents at least three carbon atoms, is capable

of specifically complexing with the detectable polypeptide when A is linked to B, and represents a component of a signalling moiety capable of producing a detectable signal;

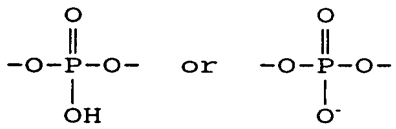
wherein B and A are covalently attached directly or [indirectly] through a linkage group, said linkage group not interfering substantially with the characteristic ability of A to form said complex with the detectable polypeptide;

wherein if B is a purine, A or the linkage group is attached to the 8-position of the purine, if B is a 7-deazapurine, A or the linkage group is attached to the 7-position of the deazapurine, and if B is a pyrimidine, A or the linkage group is attached to the 5-position of the pyrimidine;

[wherein m, n, and p are integers, provided that m and p are not simultaneously 0 and provided further that n is never 0; and

wherein z represents H or HO]

wherein one of x and y represents



and the other of x and y is absent or represents -OH or -H; and

wherein z represents H- or HO-. --

Rewrite claim 174 as follows:

--~~174.~~ (amended) A compound useful as a probe for detecting the presence or absence of a nucleic acid, said compound containing a nucleotide having the structure:

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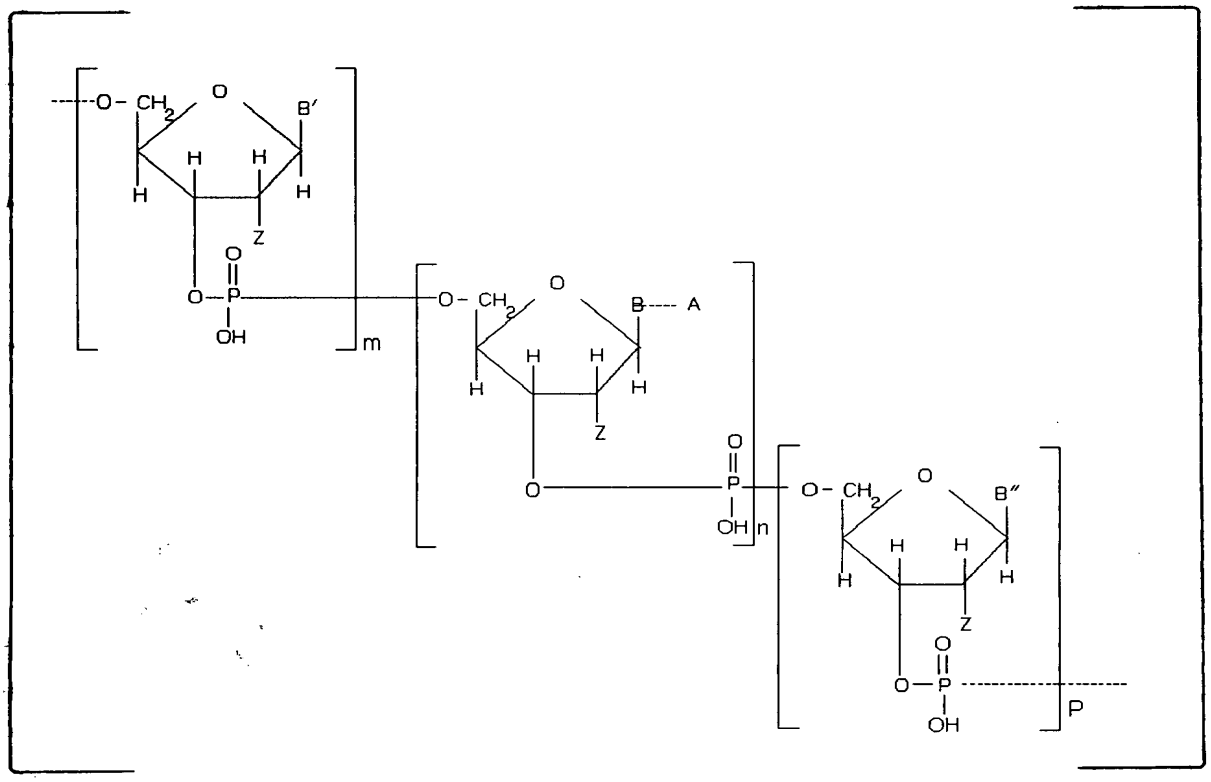

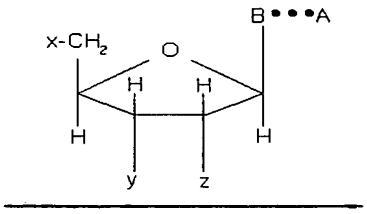

wherein B [each of B, B′, and B"] represents a purine, 7-deazapurine, or pyrimidine moiety covalently bonded to the C$^{1'}$-position of the sugar moiety, provided that whenever B [, B′, or B"] is purine or 7-deazapurine, the sugar moiety is attached at the N^{9}-position of the purine or deazapurine, and whenever B [, B′, or B"] is a pyrimidine, the sugar moiety is attached at the N^{1}-position of the pyrimidine;

wherein A represents at least three carbon atoms and an indicator molecule selected from the group consisting of fluorescent dyes, electron-dense reagents, enzymes which can be

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reacted with a substrate to produce a visually detectable reaction product and radioisotopes;

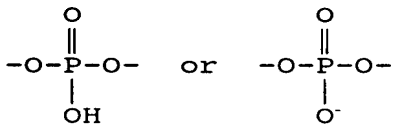
wherein B and A are covalently attached directly or [indirectly] through a linkage group, said linkage group not interfering substantially with detection of A;

wherein if B is a purine, A or the linkage group is attached to the 8-position of the purine, if B is a 7-deazapurine, A or the linkage group is attached to the 7-position of the deazapurine, and if B is a pyrimidine, A or the linkage group is attached to the 5-position of the pyrimidine;

[wherein m, n, and p are integers, provided that m and p are not simultaneously 0 and provided further that n is never 0; and

wherein z represents H or HO]

wherein one of x and y represents



and the other of x and y is absent or represents -OH or -H; and

wherein z represents H- or HO-. --

REMARKS

The present application has claims 152-155, 158-161 and 164-174 pending. Applicants have hereinabove amended claims 164, 167, 173 and 174 by deleting the word "indirectly" from the description of how moieties A and B are connected. This amendment was made to improve the clarity of the claims and raises no issue of new matter. Claims 167 and 174 were also amended to delete the structural formulae which were objected to by the Examiner and substitute formulae which more clearly describe the invention and which do not contain the criticized terms.